

Profiling of a heat ...

33471  
S/170/62/005/002/003/009  
B104/B138

resultant temperature fluctuations of the fuel elements were studied. There are 1 figure, 2 tables, and 1 non-Soviet reference. The reference to the English-language publication reads as follows: Winterberg, Special Nonuniform Fuel Distributions and Cooling Problem in Reactors, Geneva, 1958.

SUBMITTED: October 3, 1961

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36778  
S/089/62/012/005/010/014  
B102/B104

26.222/

AUTHOR: Ponomarev-Stepnoy, N. N.

TITLE: Reactor zone profiling

PERIODICAL: Atomnaya energiya, v. 12, no. 5, 1962, 415-417

TEXT: Since zone profiling with continuous variation of the fissile matter concentration (Atomnaya energiya, 11, 1, 19, 1961) is not always possible, zone profiling with concentration jumps at the zone interfaces is considered. The task of zone profiling is to determine the optimum concentration distribution of the fissile matter and the optimum zone size. The procedure in the case of a reflected cylindrical reactor is demonstrated. a) Cross-sectional profiling: The core is assumed to consist of n coaxial zones (radii  $r_i$ ). The profiling condition reads:

$q_{F_1}^{\max} = q_{F_2}^{\max} = \dots = q_{F_n}^{\max} = q_F^{\max}$ . The maximum energy release  $q_F^{\max}$  and the profiling coefficient  $k_r = q_F^{\max} / q_F^{\text{mean}}$  are calculated for a reactor consisting of two core zones and two reflector cores. The results are compared

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with those for a non-profiled reactor. For the latter  $k_r = 1.62$ , for the profiled one  $k_r = 1.135$ . b) Profiling with respect to the length: If  $T_{CT}^{\max}$  denotes the maximum surface temperature of a fuel element,  $T_{CT_1}^{\max} = T_{CT_2}^{\max} = \dots = T_{CT_n}^{\max} = T_{CT}^{\max}$  for  $n$  zones is the profiling condition. If the wall temperature is highest at the right zone boundary, for each zone

$$T_{CT}^{\max} = T_{r_0} + a \sum_{j=1}^n e_{I_j} \int_{r_{j-1}}^{z_j} J(z) dz + b Q_{I_j} J(z_i), \quad (9),$$

and the fuel concentration distribution is given by

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$$\varrho_{f,i} = \frac{\left(T_{cr}^{max} - T_{T_0}\right) \prod_{j=1}^{i-1} \frac{bJ(z_j)}{z_j \int\limits_a^{z_j} J(z) dz + bJ(z_j)}}{a \int\limits_{z_{i-1}}^{z_i} J(z) dz + bJ(z_i)} \quad (10).$$

$J(z)$  is the fission integral per fissile nucleus,  $\varrho_{f,i}$  is the nuclear density of the fuel,  $a$  and  $b$  are constants and  $T_{T_0}$  is the coolant temperature at the reactor entry. The optimum zone dimensions can be found with the help of

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$$\frac{J(z_{i+1}) [J^2(z_i) - J'(z_i) \int_{z_{i-1}}^{z_i} J(z) dz]}{a \int_{z_{i-1}}^{z_i} J(z) dz + b J(z_i)} - \frac{J^2(z_i) J(z_{i+1})}{a \int_{z_i}^{z_{i+1}} J(z) dz + J(z_{i+1})} = 0.$$
(12).

There are 2 figures.

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Fig. 1. Radial zone profiling results.  $\text{P}$  - profiled reactor,  
 $\text{H}$  - non-profiled reactor; 3CHA = zone; relative scale units. Zones III  
 and IV belong to the reflector.

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26.2223

AUTHORS: Ponomarev-Stepnoy, N. N., Glushkov, Ye. S.

TITLE: The problem of physical profiling of the heat release in heterogeneous power reactors

PERIODICAL: Atomnaya energiya, v. 12, no. 5, 1962, 418-419

TEXT: Physical profiling of heat production in a homogeneous reactor has been considered in a previous paper (Atomnaya energiya, 11, no. 1, 19, 1961). A heterogeneous reactor is now considered and profiling is carried out in two-group approximation for a homogenized reactor working with pure fissile material as fuel. With  $\bar{v}v_2^5 c_2^5 F = B = \text{const}$  as the

profiling condition (demand for constant specific volume heat production) the two-group reactor equations

$$\begin{aligned} D_1 \nabla \bar{v}v_1 - \sum_{c_1}^5 \bar{v}v_1 + v_5^2 \sum_{c_2}^5 \bar{v}v_2 &= 0; \\ \nabla D_2 \nabla \bar{v}v_2 + \sum_{c_1}^5 \bar{v}v_1 - \sum_{c_2}^5 \bar{v}v_2 - \sum_{c_2}^3 \bar{v}v_2 &= 0. \end{aligned} \quad (1)$$

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S/089/62/012/005/011/014  
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can be written as

$$\left. \begin{aligned} D_1 \nabla^2 \bar{n}v_1 - \Sigma_{c_1} \bar{n}v_1 + v_1^6 / f_0 B &= 0; \\ D_2 \nabla^2 \bar{n}v_2 + \Sigma_{c_2} \bar{n}v_2 - f_0 B - Q_3 \sigma_{c_2}^a \bar{n}v_2 E &= 0. \end{aligned} \right\} \quad (3).$$

$\sum_{c_2}^6$  is the macroscopic absorption cross section for the fuel,  $\sum_{c_2}^3$  is that for the remaining material,  $f_0$  is the nuclear fuel density in the lumps,  $\sigma_3$  moderator nuclear density,  $f_0 = V_0 / V_2 \ll 1$ ,  $V_0$  - lump volume,  $V_2$  - cell volume;  $F = \bar{n}v_2 / \bar{n}v_1 = \text{const}$ ;  $E = \bar{n}v_2 / \bar{n}v_1 = \text{const}$ ;  $\bar{n}v_1$ ,  $\bar{n}v_2$  and  $\bar{n}v_1^6$  are the mean neutron fluxes in cell, lump and moderator;  $\sigma_c^a$ ,  $\sigma_c^m$  and  $\sigma_c^p$  are the microscopic absorption cross sections for fuel, moderator and fuel diluent ( $\sigma_c^p = 0$ ).  $\beta_5$  is the mean number of secondary neutrons per thermal neutron capture,  $D$  - neutron diffusion coefficient,  $\Sigma_{c_1}$  - macroscopic slowing-down cross section. The subscripts 1 and 2

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refer to fast and thermal neutrons. The unknown functions  $nv_1$ ,  $nv_2$ ,  $f_1$  and  $\varphi_5^6$  can be determined if additional relations between them are known. In practice they have to be determined from the reactor design, e. g.  $f_1$  is a known function of the radius in the core,  $\overline{nv}_2 = \text{const}$ ,  $\varphi_5^5 = \text{const}$ , or  $\varphi_5^6$  is a known function of the coordinates. Such possibilities are discussed in detail.

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26.2221

AUTHORS: Ponomarev-Stepnoy, N. N., Glushkov, Ye. S.

TITLE: Solution of reactor equations with allowance for variable moderator density in physical profiling

PERIODICAL: Atomnaya energiya, v. 12, no. 5, 1962, 419-421

TEXT: A method is proposed for longitudinal energy release profiling with a given fission neutron source distribution. The variation of moderator density along the reactor is taken into account. The problem is solved in two-group approximation, assuming that the specific energy release is a given function of the coordinates. The reactor equations in plane geometry

$$\left. \begin{aligned} \frac{d}{dx} \left( D_1 \frac{d}{dx} nv_1 \right) - \Sigma_1 nv_1 - S_0(x) &= 0; \\ \frac{d}{dx} \left( D_2 \frac{d}{dx} nv_2 \right) + \Sigma_1 nv_1 - \Sigma_{c_1}^5 nv_2 - \Sigma_{c_2}^3 nv_3 &= 0, \end{aligned} \right\} (1)$$

with  $S_0(x) = \nu \sum_{c_1}^5 \sum_{c_2}^3 nv_2$  is a given coordinate function and

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Solution of reactor equations with ...

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$$D_j = \frac{D_j^0}{\beta(x)}; \quad \Sigma_1 = \Sigma_1^0 \beta(x); \quad \Sigma_{c_2}^0 = \Sigma_{c_2}^{n_0} \beta(x) \quad (3)$$

can be rewritten as

$$\left. \begin{aligned} D_1 \frac{d^2 n v_1}{dy^2} - \Sigma_1^n n v_1 &= -\frac{S_0(x)}{\beta(x)}; \\ D_1 \frac{d^2 n v_2}{dy^2} + \Sigma_2^n n v_1 - \Sigma_{c_2}^{n_0} n v_2 &= \frac{S_0(x)}{v_2^n \beta(x)}, \end{aligned} \right\} \quad (4);$$

*✓*

$dy = \beta(x) dx.$

also  $\beta(x)$  is a known coordinate function. Then the system (4) can be represented as  $d\Phi/dy = \hat{L}\Phi + Q(x)$ , with

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PONOMAREV-STEPNOY, N. N.

"Theoretical and experimental investigation of the effectiveness of  
the absorber rods in a reflected reactor."

Report presented at the Symposium on Physics and Material Problems  
of Reactor Control Rods, Vienna, 11-15 Nov 63.

PONOMAREV-STEPNOY, N. N.; NOSOV, V. N.; PORTNOY, K. I.; SAVELYEV, E. G.

"Absorption materials of the dispersion type for the control organs  
of thermal reactors."

Report presented at the Symposium on Physics and Material Problems  
of Reactor Control Rods Program, Vienna, 11-15 Nov 63.

PONOMAREV-STEPNOY, N.N.; LOMAKIN, S.S. DEGAL'TSEV, Yu.G.

Fuel element on the basis of teflon-4 for critical assemblies.  
Atom. energ. 15 no. 3:259-260 S '63. (MIRA 16:10)

(Nuclear fuels)

PONOMAREV-STEPNOY, N. N.; SMIRNOV, O. N.; KOSOVSKIY, V. G.

"Neutron-physical characteristics of zirconium hydride-moderated systems."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva,  
31 Aug-9 Sep 64.

PONOMAREV-STEPNOY, N. N.; KOLBASOV, B. N.; VIYEVNOV, A. N.

"High-temperature gas cooled power reactor."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva,  
31 Aug-9 Sep 64.

PONOMAREV-STEPNOY, N. N.; SMIRNOV, O. N.; KULEVA, R. V.

"Investigation on System with Zirconium Hydride Moderator."

report submitted for 3rd Intl Conf on the Peaceful Uses of Atomic Energy,  
Geneva, 31 Aug-9 Sep 64.

PONOMAREV-STEPNOY, N.N.; LOMAKIN, S.S.

Study of critical rod assemblies with beryllium moderators, Atom  
energ. 16 no.3:228-233 Mr '64.  
(MIRA 17:3)

PONOMAREV-STEPNOY, N.N.; NOSOV, V.I.

Theoretical and experimental studies on the efficiency of  
absorbing control rods in a reflected reactor. Atom. energ.  
17 no.2:103-107 Ag '64 (MIRA 17:8)

L 14360-65 ENT(m)/EPF(c)/EPF(n)-2/EPA(d)/EPR/E&P(t)/E&P(b) Pr-4/Ps-4/  
Pu-4 AFWL/SSD/ASD(n)-3/ESD(gs) JD/JG/DM  
ACCESSION NR: AP4043985 S/0089/64/017/002/0107/0113

AUTHOR: Nosov, V. I.; Ponomarev-Stepnov, N. N.; Portnoy, K. I.; Savel'yev, Ye. G.

TITLE: Dispersion-type absorbing materials for control rods of thermal reactors <sup>19</sup>

SOURCE: Atomnaya energiya, v. 17, no. 2, 1964, 107-113

TOPIC TAGS: thermal reactor, reactor control rod, control rod, absorption material, rare earth element, nimonic alloy, samarium, europium, galodinium, erbium, dysprosium, lanthanide <sup>18</sup>

ABSTRACT: The physical properties of neutron-absorbing materials made of nimonic-type alloys with rare-earth oxides dispersed in them, were investigated for the purpose of determining their use as control rods in thermal reactors. The experiment included the investigation of several elements of the lanthanide group, i.e., samarium, europium, galodinium, erbium and dysprosium, which are characterized by their large

neutron absorption cross section and ability to use up admixtures to a

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ACCESSION NR: AP4043985

heat-resistant nimonic base. The cylindrical specimens measured 10—25 mm in diameter and 100—220 mm in length (the ratio of length to diameter ~10). Effectiveness was measured at room temperature in the core of a thermal reactor. The investigation of radiation resistance of the investigated materials shows that after irradiation by an integrated neutron flux of  $\sim 3 \cdot 10^{20}$  thermal n/cm<sup>2</sup> (in air medium at 1000°C) no noticeable change in dimensions was noticed. It was established that of the investigated materials europium oxide is the most promising for use in control rods, since it is an absorber with a slow burn-up rate making it suitable for lengthy reactor runs. It was also noticed that absorbing alloys with admixtures of rare-earth oxides dispersed in a metallic matrix have a significant absorbing property at a relatively small content of absorber in the alloy (about 5—10 weight %). The investigated alloys are of relatively high strength and have good thermophysical properties at increased temperatures in the area of the absorber's concentration up to about 10 weight %. Orig. Art. has: 7 figures, 6 tables, and 2 formulas.

ASSOCIATION: none

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L 14360-65  
ACCESSION NR: AP4043985

SUBMITTED: 100ct63

SUB CODE: NP

NO REF Sov: 003 OTHER: 006

ENCL: 00

Card 3/3

21c

L 18316-65 EWC(j)/EWT(l)/EWP(e)/EWG(k)/ENT(m)/EPF(c)/EPF(n)-2/EPR/EEC(b)-2/EWP(b)  
Pz-6/Pr-4/Ps-4/Pu-4 IJP(c)/AFWL/SSD WW/AT/WH  
ACCESSION NR: AP4049532 S/0089/64/017/005/0329/0335

AUTHOR: Millionshchikov, M. D.; Gverdtsiteli, I. G.; Abramov,  
A. S.; Gorlov, L. V.; Guhanov, Yu. D.; Yefremov, A. A.; Zhukov, V. F.;  
Ivanov, V. Ye.; Kovyrzin, V. K.; Koptelov, Ye. A.; Kosovskiy, V. G.;  
Kukharkin, N. Ye.; Kucherov, R. Ya.; Lalykin, S. P.; Merkin, V. I.;  
Nechayev, Yu. A.; Pozdryakov, B. S.; Ponomarev-Stepnov, N. N.;  
Samarin, Ye. N.; Serov, V. Ya.; Usov, V. A.; Fedin, V. G.; Yakovlev,  
V. V.; Yakutovich, M. V.; Khodakov, V. A.; Kompaniyets, G. V.

TITLE: The "Romashka" high-temperature reactor-converter /9

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 329-335

TOPIC TAGS: nuclear power reactor, reactor feasibility study, re-  
search reactor, thermoelectric converter/Romashka

ABSTRACT: The authors briefly describe the construction, parameters,  
test results, and operating experience of the "Romashka" reactor-

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ACCESSION NR: AP4049532

converter unit, which has been in operation at the Kurchatov Atomic Energy Institute since August 1964. The fuel used is uranium di-carbide enriched to 90% U<sup>235</sup>. Graphite and beryllium are used as reflectors. Electricity is generated by silicon-germanium semiconductor thermocouples distributed on the outer surface of the reflector and connected in four groups which can be connected in series or in parallel. The temperatures of the active zone and outer surface are 1770 and 1000°C, respectively. The power ratings are 0.50—0.80 kW electric and 40 kW thermal, the maximum current (parallel connection) is 88 A, the neutron flux is  $10^{13}$  neut/cm<sup>2</sup> sec in the center of the active zone and  $7 \times 10^{12}$  on its boundary. The reactor has a negative temperature reactivity coefficient. The equipment has high inherent stability and requires no external regulator, and little change was observed in the thermocouple properties after 2500 hours of operation. Tests on the equipment parameters are continuing, and the results are being analyzed for use in future designs.  
Orig. art. has: 8 figures and 1 formula.

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SOURCE:

Atomnaya energiya, 1958, no. 11

TOPIC TAGS: energy conversion, thermoelectric converter, thermionic emission converter

ABSTRACT: This is a review of papers delivered at the Third Geneva Conference on the Peaceful Use of Atomic Energy, dealing with systems for the direct conversion of thermal energy into electricity. The papers reviewed are numbers 217, 218, 318, 873 dealing with thermoelectric systems, and 44, 132, 219, and 317, dealing with thermionic emission systems. Original article has: 8 figures

ASSOCIATION: None

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L 58746-65

ACCESSION NR: AP5012477

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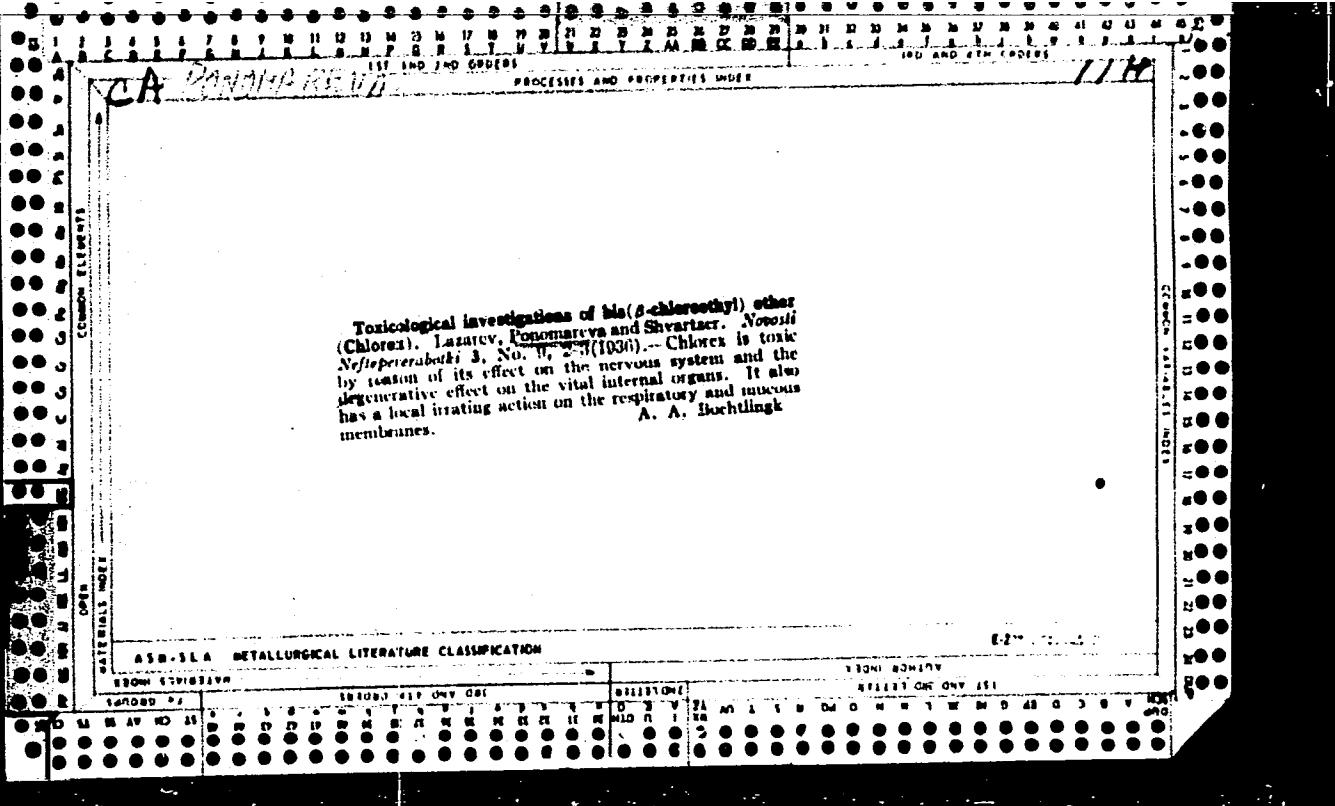
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OTHER: 000

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APPROVED FOR RELEASE: 06/15/2000

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PONOMAREVA, A.

USSR / Soil Science. Organic Fertilizers.

J-3

Abs Jour : Ref Zhur - Biologiya, No 16, 1958, No. 72726

Author : Ponomareva, A.

Inst : Not given

Title : Bacterial Fertilizers and the Fertility of the New Lands

Orig Pub : S kh. Kazakhstan, 1956, No 10, 28-31

Abstract : Experiments were conducted in the kolkhozes of Kazakhstan for two years. With harvests of wheat (in 13 tests) of 23.3 to 1.56 c/ha, increases from phosphorobacterin fluctuated from 3.8 to 0.2 c/ha. Only in one test did the increase equal zero, the remaining 12 increases were all positive. Attention is drawn to a test in 1956 at the "Kolos" Kolkhoz with the wheat variety Tsozium 111, where, with a harvest of 1.56 c/ha, the increase from phosphorobacterin equaled 1.66 c/ha. -- Ye. V. Bobko

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SHCHUKIN, Aleksey Grigor'yevich; SHKOL'NIKOV, Boris Yakovlevich;  
ZAV'YALOVA, A.N., red.; MOZGALEVSKAYA, S.A., mlad. red.;  
PONOMAREVA, A.A., tekhn. red.; GERASIMOVA, Ye.S., tekhn.  
red.

[Technical, industrial and financial plan of enterprises  
of local importance] Tekhpromfinplan predpriatii mestnogo  
znacheniia. Moskva, Ekonomizdat, 1963. 295 p.

(MIRA 16:11)

(Industrial management)

POPOV, V.V. [deceased]; PONOMAREVA, A.A.

The Xylocopini fauna (Hymenoptera, Apoidea) of the Soviet Union.  
Ent. oboz. 40 no.2:393-404 '61. (MIRA 14:6)

1. Zoologicheskiy institut AN SSSR, Leningrad.  
(Carpenter beetles)

PONOMAREVA, A. A. Cand Biol Sci -- "Bees - the pollinators of leguminous plants of western Kopet-Dag." Len, 1960 (All-Union Order of Lenin Acad Agr Sci im V. I. Lenin. All-Union Sci Res Inst of Plant Protection). (KL, 1-61, 189)

-139-

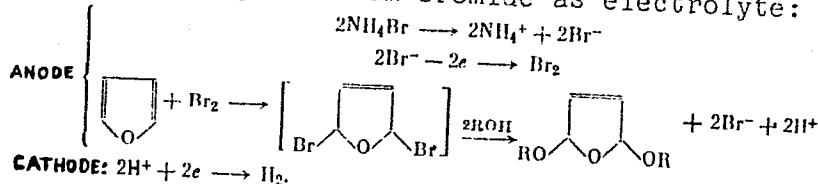
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78295  
SOV/79-30-3-4/69

AUTHORS: Ponomareva, A. A., Markushina, I. A.

TITLE: Concerning Study of Furan Compounds. XIII. New Data  
Concerning Electrolytic Methoxylation of Furan CompoundsPERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 3,  
pp 976-981 (USSR)

ABSTRACT: Electrolytic methoxylation of furan compounds containing, in side chains, ester groups or carbonyls in 3 or 4 position, was studied. The reaction was conducted, basically, according to the method proposed by N. Clauson-Kaas and others (Acta Chim. Scand., 6, Nr 4, 531, 1952) using ammonium bromide as electrolyte:



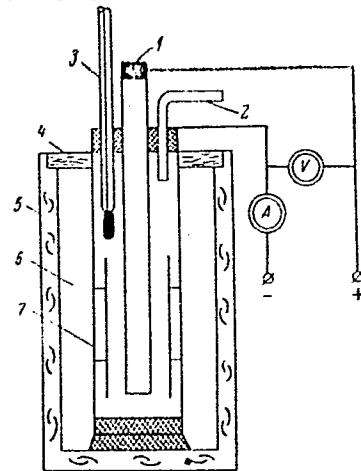
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Concerning Study of Furan Compounds. XII

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SOV/79-30-3-49/69

However, some substantial changes were made in the construction of the electrolyzer. The platinum electrode was replaced with a more available and cheaper carbon electrode. Ni sheets were used as cathode.

Fig. B. Diagram of electrolyzer for alkoxylation. (1) Carbon anode; (2) gas outlet; (3) thermometer; (4) cover; (5) container for cooling mixture; (6) cooling mixture; (7) nickel cathode.

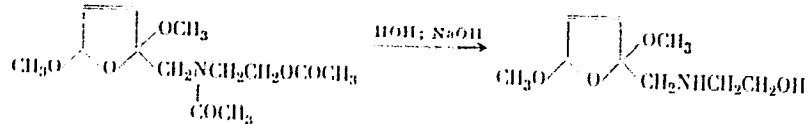


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Concerning Study of Furan Compounds. XII

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Experiments show that the proposed new electrolyzer is as efficient as the previously used electrolyzer with platinum anode, and in some cases the yield of the products of reaction is even higher. The dimethoxydihydrofuran derivatives obtained by methylation of the corresponding compounds, using the new electrolyzer, are listed in Table 2. Dimethoxydihydrofuran derivatives of N-acetofurfurylaminooacetol acetate were hydrolyzed:



Many of the dimethoxydihydrofurans obtained were converted into corresponding dimethoxytetrahydrofurans by their hydrogenation in alcoholic solution under pressure at 20-40° in the presence of Raney nickel. The dimethoxytetrahydrofurans obtained for the first time are listed in Table 3. The starting compounds and

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the conditions of their methoxylation are given in Tables 4 and 5. I. S. Monakhova took part in the experimental work. There are 1 figure; 5 tables; and 10 references, 1 Danish, 7 Swedish, 2 Soviet.

ASSOCIATION: Saratov State University (Saratovskiy gosudarstvennyy universitet)

SUBMITTED: April 3, 1959

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Concerning Study of Furan Compounds.  
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Table 2

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<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i> <sub>7</sub> <sup>20</sup>	<i>n</i> <sub>D</sub> <sup>20</sup>	<i>d</i>		<i>MRI</i>		<i>%C</i>		<i>%H</i>		<i>%N</i>	
					e	f	e	f	e	f	e	f	e	f
	78	158-160° (760)	—	1.4326 (mpn 25°)	—	—	—	—	—	—	—	—	—	—
	67	158-160 (760)	—	1.4289	—	—	—	—	—	—	—	—	—	—
	68.5	118-120 (12)	—	1.4458	—	—	—	—	—	—	—	—	—	—
	46.7	105-105.5 (1)	1.105	1.4578	248.6	230.25	56.59	56.23	57.12, 57.26	57.38	8.32, 7.74	7.88	—	—
	67.1	133-134 (7)	1.0743	1.4526	238.3	244.28	61.42	61.53	59.15, 59.44	59.00	8.27, 8.36	8.25	—	—
	51.5	103-104 (2)	1.077	1.4568	202.5	200.2	50.64	50.65	60.42, 60.59	59.98	8.39, 8.46	8.06	—	—
	55.0	120-122 (1.5)	1.134	1.4750	213	203.2	50.46	51.15	53.19	53.19	8.98	8.43	7.34, 7.21	6.89
	51	99-101.5 (5)	0.9876	1.4461	—	—	59.07	59.88	66.02	67.26	10.61	10.35	—	—

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Concerning Study of Furan Compounds.

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Key to Tables 2 and 3: (a) Formula; (b) yield (%);  
 (c) bp (pr in mm); (d) molecular weight; (e) found;  
 (f) calculated.

Table 3

a	b	c	$d_4^{20}$	$n_D^{20}$	d		MR <sub>D</sub>		%C		%H		%N	
					e	f	e	f	e	f	e	f	e	f
<chem>*C(=O)c1cc(OCC)c(*)cc1OC(=O)C(C)C</chem>	84.4	142-143° (6)	1.0472	1.4420	258	246.3	62.23	62.009	58.01, 58.85	58.51	9.15, 9.06	9.00	-	-
<chem>*C(=O)c1cc(OCC)c(*)cc1OC(=O)C(C)C</chem>	67.5	124.5-126.5 (4)	1.040	1.4432	210.2	202.2	51.58	51.12	59.50, 59.18	59.39	9.45, 9.60	8.97	-	-
<chem>*C(=O)c1cc(OCC)c(*)cc1OC(=O)C(C)C</chem>	86.6	124.5-125 (1.5)	1.115	1.4630	208	205.2	51.13	51.62	52.77, 52.68	52.67	9.22, 8.82	9.33	6.92, 6.96	6.83

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Table <sup>a</sup>

<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>e</b>	<b>f</b>
	0.5	3.9-3.0	-	-12°	22.7
	0.5	3.5-2.8	6-12	-16	22.5
	0.3	3.0-2.9	8-13	-13	21.0
	0.3	3.7-2.5	5-15	-14	23.0
	0.39	3.5-3.0	5-14	-13	26.0
	0.09	3.0-1.5	9-11	-14	8.9

Key: (a) Formula; (b) amount of starting compound (g-mole);  
 (c) current (in amp); (d) voltage (in v); (e) temperature in  
 cell; (f) number of amp/hr.

Card 7/8

Concerning Study of Furan Compounds. 78295 SOV/79-50-3-49/69  
XII

Table 5

a	b	c	d
	0.08	30°	100-120
	0.098	40	60-100
	0.1	20	50-75

Key: (a) Formula; (b) amount of compound (g-mole);  
(c) temperature; (d) pressure (in atm).

Card 8/8

POPOV, V.V.; PONOMAREVA, A.A.

"Bees (Apcidea) of the right-bank area of the Ukrainian steppe" by  
H.Z. Osychniuk. Reviewed by V.V. Popov, A.A. Ponomareva. Ent.  
oboz 39 no.4:970-971 '60. (MIRA 14:3)

(Ukraine--Bees)  
(Osychniuk, H.Z.)

PONOMAREVA, A.A.

Bees as pollinizers of leguminous plants in the western Kopet Dagh. Trudy Zool. inst. 27:94-166 '60. (MIRA 13:9)

1. Zoologicheskiy institut Akademii nauk SSSR, Leningrad.  
(Kopet Dagh—Bees) (Leguminosae)  
(Fertilization of plants)

PONOMAREVA, A.A.

DOROGOVAY, A.I., pechveved, kandidat sel'skokhozyaystvennykh nauk;  
MOISEYCHENKOV, G.I., inzhener-gidrotehnik; SHTOL'TS, S.K., lesovod;  
MALYSHEV, A.M., agronom, kandidat sel'skokhozyaystvennykh nauk;  
KAZACHENKO, B.V., agronom [deceased]; RADZHUVET, A.P., krayeved;  
PONOMAREVA, A.A., entomolog; ANUFRIYEV, P., redaktor; BANNIKOV, P.,  
redaktor; GORENSHTEYN, G., tekhnicheskiy redaktor.

[Nature in Penza Province] Priroda Pensenskoi oblasti. Penza,  
Penzenskoe kn-vo, 1955. 458 p. (MIRA 9:6)  
(Penza Province--Natural history)

PONOMAREVA, A.A.

Nesting habits in some species of higher bees (Hymenoptera, Apoidea)  
in southwestern Turkmenia [with summary in English]. Ent. oboz. 37  
no. 3:616-629 '58. (MIRA 11:10 )

1. Zoologicheskii institut AM SSSR, Leningrad.  
(Kara-Kala District--Bees)

PONOMAREVA, A. G., Cand Med Sci -- (diss) "Materials on the study of the effectiveness of anticoagulants for patients with disorders of coronary blood circulation." Gor'kiy, 1960. 16 pp; (Gor'kiy State Medical Inst im S. M. Kirov); 300 copies; price not given; (KL, 23-60, 128)

PONOMAREVA, A.G.

Clinical significance of the fibrinogen level in disturbances of  
the coronary circulation. Vrach.delo no.12:1325-1326 D '59.  
(MIRA 13:5)

1. Kafedra fakul'tetskoy terapii (zav. - prof. A.I. Gefter)  
Gor'kovskogo mediteinskogo instituta.  
(FIBRINOGEN) (CORONARY VESSELS--DISEASES)

PONOMAREVA, A.G., aspirant

Results of the use of heparin on patients with disturbances of coronary circulation. Kaz.med.zhur. 40 no.4:12-17 Jl-Ag '59. (MIRA 12:3)

1. Iz kafedry fakul'tetskoy terapii (zaveduyushchiy - prof. A.I.Gefter)  
Gor'kovskogo meditsinskogo instituta.  
(HEPARIN) (CORONARY VESSELS--DISEASES)

PONOMAREVA, A. I.

USSR/Geophysics - Sewage Water Utilization Jun 51

"Experience in Using Sewage Waters for Irrigation  
in the Course of the Whole Year Round," F. S.  
Marenkin, Agronomist, A. I. Ponomareva, Engr-Con-  
servationist

"Gidrotekh i Meliorat" No 6, pp 61-65

Experience of number of regions in Moscow Oblast  
and data of sci res institutions show yield on  
lands irrigated with sewage water is 2-3 times  
higher than that of nonirrigated lands. Irriga-  
tion with sewage waters in kolkhozes was first  
begun in Uktomsk Rayon, Moscow Oblast, in 1935;

186T36

USSR/Geophysics - Sewage Water Utilization Jun 51  
(Contd)

now it is successfully employed in many others.  
Concludes sewage water decreases acidity of  
soils and can be used in most cases with discard.

186T36

S/115/60/000/06/02/031  
B007/B014

AUTHOR: Ponomarev, A. I.

TITLE: Introduction of the New Measuring Technique<sup>14</sup> Into the Production

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 6, pp. 4-5

TEXT: In compliance with the decisions of the Central Committee of the Communist Party of the Soviet Union from June, 1959, the Upravleniye upolnomochennogo Komiteta pri Sovete Ministrov USSR (Administration of the Authorized Committee at the Council of Ministers of the UkrSSR) and the State Control Laboratories of Measuring Technique established a closer contact with sovnarkhoz, their administrations and enterprises, and industrial laboratories, and submitted a plan providing for the introduction of a new measuring technique. The measures to be taken were established in October, 1959 on the initiative of the afore-mentioned administration. The author gives a survey of the introduction of the new measuring technique. Industrial enterprises worked out long-term plans for the introduction of the new measuring technique, which occasionally cover two or

Card 1/3

Introduction of the New Measuring Technique  
Into the Production S/115/60/000/06/02/031  
B007/B014

three years. The collaborators of GKL (State Control Laboratories) use information of VNIIK, the paper under review, prospectuses of the Vsesoyuznaya vystavka dostizheniy narodnogo khozyaystva (All-Union Exhibition of the Achievements of National Economy), and price-lists of Glavpriborsbyt Gosplana UkrSSR (Glavpriborsbyt Gosplan UkrSSR). The author points out that these sources of information are insufficient so that 95 investigations were carried out in the Soviet Union in 1959 under a special program. Further, meetings were arranged for the purpose of eliminating shortcomings, which were attended by Chief Engineers, heads of TsIL (Central Measurement Laboratories), and other cooperators of enterprises. Such meetings were held at Zaporozh'ye (Kiyevskiy sovnarkhoz - Kiyev sovnarkhoz) in August, 1959, and on the production of enterprises of the L'vovskiy sovnarkhoz (L'vov sovnarkhoz) in 1959. Furthermore, a scientific and technical conference on the present stage of automation and mechanization of control operations in angular and length measurements, as well as on the introduction of progressive means and measuring techniques in machine and instrument construction was held at Kiyev in October, 1959, which was also attended by representatives of NTO Priborprom and KhGIMIP. The success achieved by these measures is illustrated by the following works:

Card 2/3

DOVZHENKO, L.I.; BELOUSOVA, N.I.; PONOMAREVA, A.K.

Hereditary capacity for the intensive development of ovaries  
without pollination in corn. Trudy TSSB no. 2:36-41 (MIRA 17:9)

MISCHENKO, K.P.; PONOMAREVA, A.M.

Heat capacities of individual ions in aqueous solutions at infinite  
dilution. Zhur.Fiz.Khim. 26, 998-1006 '52. (MLRA 5:9)  
(CA 47 no.13:6240 '53)

1. Lensoviet tehnologicheskogo instituta, Leningrad.

BARON, N.M; KVIAT, E.I.; PODGORNYA, Ye.A.; PONOMAREVA, A.M.; RAVDEL', A. A.  
TMOFTYeva, Z.N.; MISHCHEKO, K.P., redaktor; LEVIN, S.S., tekhnicheskij  
redaktor; FOMKINA, T.A., tekhnicheskij redaktor.

[Concise reference book of values in physics and chemistry] Kratkii  
spravochnik fiziko-khimicheskikh velichin. Sost. N.M. Baron, i dr.  
Leningrad, Gos. nauchno-tekhn. izd-vo khim cheskoi lit-ry, 1955. 86 p.  
(Chemistry--Tables, etc.) (Physics--Tables, etc.) (MLRA 3:8)

USER/ Chemistry - Books

Card 1/1 Pub. 147 - 35/35

Authors : Filatov, I. G.

Title : Bibliography. Reference book on physico-chemical values

Periodical : Zhur. fiz. khim. 30/1, 237-238, Jan 1956

Abstract : A critical review is given on a new reference book physico-chemical values composed by N. B. Baron; E. I. Kvyat; Ye. A. Podgornaya; A. M. Ponomareva; A. A. Rvdel' and Z. N. Timofeyeva and published by the GOSKhimizdat in Leningrad in 1955. It is stated that the book contains a chart of Mendeleev's periodical system of elements, list of important constants (mass, electron charge, mass of protons, neutrons and alpha particles, gas constant, Avogardo, Planck, Boltzmann constants, etc.) and other thermodynamic values.

Institution : .....

Submitted : .....

PONOMAREVA, A. M.

BARON, N.M.; KVIAT, E.I.; PODGORAYA, Ye.A.; POHOMAREVA, A.M.; RAVDEL', A.A.;  
TIMOFEEVA, Z.N.; MISHCHENKO, K.P., redaktor; LOBINA, N.K., redaktor;  
LEVIN, S.S., tekhnicheskij redaktor; POMKINA, T.A., tekhnicheskij  
redaktor

[Concise manual of physical and chemical measures] Kratkii spravochnik  
fiziko-khimicheskikh velichin. Pod red. K.P.Mishchenko i A.A.Ravdelia.  
Izd. 2-oe, dop. Leningrad, Gos.nauchno-tekhn.izd-vo khim.lit-ny,  
1957. 111 p. (MLRA 10:9)

(Weights and measures--Tables, etc.)

MISHCHENKO, K.P.; PONOMAREVA, A.M.; RAVDEL', A.A.; BARON, N.M.;  
YEGOROV, I.M.; KVAT, E.I.; VOLOVA, Ye.D.; MARKOVICH, V.G.;  
SEMELEV, G.I.; MARGOLIS, V.N., SMORODINA, T.P.; YAVORSKIY,  
I.V. Prinimal uchastiye FRANK-KAMENETSKIY, V.A.; TOMARCHENKO,  
S.L., red.; LEVIN, S.S., tekhn. red.

[Practical work in physical chemistry] Prakticheskie raboty po  
fizicheskoi khimi. Izd.2., perer. Leningrad, Gos. nauchno-  
tekhn. izd-vo khim. lit-ry, 1961. 374 p. (MIRA 15:2)  
(Chemistry, Physical and theoretical—Laboratory manuals)

KOZKO, A.I., inzh.; KONOVALOVA, L.N., inzh.; Prinimali uchastiye: RYUKINA,  
A.A.; PONOMAREVA, L.A.; GIREVA, L.M.

Comparative evaluation of methods for determining the coking  
capacity of coals. Obog.i brik.ugl. no.14:47-76 '60. (MIRA 14:5)  
(Coal—Testing)

5(0)  
AUTHORS:

Mashovets, V. P., Ponomareva, A. M.

SOV/153-2-2-31/31

TITLE:

Chronicle. All-Union Competition for the Best Students-paper Concerning Chemistry and Chemical Technology for the Scholastic Year 1957-1958 (Khronika. Vsesoyuznyy konkurs luchshuyu studencheskuyu rabotu po khimii i khimicheskoy tekhnologii za 1957-1958 uchebnyy god)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 2, pp 303-304 (USSR)

ABSTRACT:

The Ministerstvo vysshego obrazovaniya SSSR (Ministry for University-education of the USSR) carried out the competition mentioned in the title, within the framework of the Studencheskiye nauchnyye obshchestva (Scientific Student Societies) covering 37 subjects of science, technology, arts, and culture. The Leningradskiy tekhnologicheskiy institut imeni Lensoveta (Leningrad Technological Institute imeni Lensoveta) was entrusted with the subject "Chemistry and Chemical Technology". A commission was formed consisting of Professor V. B. Aleksovskiy, V. P. Mashovets (Chairman), I. P. Mukhlenov, A. A. Petrov, B. A. Poray-Koshits, Docent P. A. Yablonskiy, and Candidate of Chemical Sciences

Card 1/5

Chronicle. All-Union Competition for the Best SOV/153-2-2-31/31  
Students-paper Concerning Chemistry and Chemical Technology for the  
Scholastic Year 1957-1958

A. M. Ponomareva (Secretary). The following persons acted as critics: The Professors A. F. Alabyshev, A. M. Ginstling, I. S. Ioffe, M. I. Knyaginichev, L. Ya. Kremnev, A. B. Kusov, A. M. Malkov, I. N. Maslenitskiy, K. P. Mishchenko, Yu. V. Morachevskiy, with the collaborators, N. N. Nepenin, Yu. K. Novodranov, V. V. Perekalin, A. L. Rotinyan, A. V. Satalkin, A. V. Storonkin, and T. A. Favorskaya with collaborators, A. M. Khaletskiy; Docents: A. Ye. Akim, L. M. Batuner, M. I. Gil'dengershel', O. F. Ginzburg, I. A. D'yakonov, S. G. Zhavoronok, S. N. Zhilov, Ye. S. Roskin, P. N. Sokolov, N. P. Starostenko, M. M. Sychev, A. T. Troshchenko; Chief scientific researcher: B. F. Ioffe; Candidates of Sciences: G. A. Bel'chenko, M. K. Bynyayeva, O. N. Setkina, B. P. Yur'yev; Engineers: Kostyрева, Сенюшева, and Ярмольинский. The paper "Synthesis and Self-oxidation of the p-Di-Secondary Butyl-benzene" by V. S. Zavgorodniy, Fifth-year student of the Voronezhskiy gosudarstvennyy universitet (Voronezh State University) was awarded a medal for being the best. The second candidate for the medal is the

Card 2/5

Chronicle. All-Union Competition for the Best SOV/153-2-2-31/31  
Students-paper Concerning Chemistry and Chemical Technology for the  
Scholastic Year 1957-1958

Fifth-year-student of the Kiyevskiy gosudarstvennyy universitet (Kiev State University) K. F. Lyashev. He submitted the paper "Kinetics of the Non-stationary Catalytic Decomposition-process of Hydrogen-peroxide on Platinum". The third medal was awarded to the Fourth-year-students of the Ivanovskiy khimiko-tehnologicheskiy institut (Ivanovo Chemical-technological Institute): D. V. Nebova, A. I. Sotnikova, T. T. Simagina, and R. M. Sutyagina for the paper: "Method of Continuous Regeneration of Zinc-chloride From Waste Water of the Kineshma Fibre Factory". Besides these three papers, the commission selected further 8 papers which deserve publication owing to their maturity and originality. The papers are: "Utilization of Phosphorous Gypsum for the Production of Local Construction-binding Materials" by the Fourth-year-students of the Ivanovo Institute (see above): A. V. Tochilova and A. A. Fadeyeva; "Study of the Influence of the Dispersion of Polymer Particles, When Being Disintegrated, on the Molecular Weight" by the Third-year-student of the Moskovskiy

Card 3/5

Chronicle. All-Union Competition for the Best  
Students-paper Concerning Chemistry and Chemical Technology for the  
Scholastic Year 1957-1958

SOV/153-2-2-31/31

tekhnologicheskiy institut legkoy promyshlennosti (Moscow  
Technological Institute for Light Industry) V. N. Gorodilov;  
"Study of the Cathodical Polarization at the Precipitation  
of Chromium From Sulphide-solutions" by the Fifth-year  
student of the Ural'skiy politekhnicheskiy institut (Ural  
Polytechnical Institute) V. G. Petropavlovskiy; "Gold  
Extraction From Watery Cyanide-solutions" by the Fifth-year  
students of the Moskovskiy khimiko-tehnologicheskiy institut  
imeni D. I. Mendeleyeva (Moscow Chemical-technological Insti-  
tute imeni D. I. Mendeleyev) A. V. Ochkin, V. A. Borisov, and  
M. Mrnk; "Some Investigations of the Vulcanisates of Rubbers  
Containing Carboxyl" by the Fourth-year-students of the  
Yaroslavskiy tekhnologicheskiy institut. (Yaroslavl' Technologi-  
cal Institute) G. I. Komarova and T. A. Shchadricheva;  
"Investigation of the Cathodic and Anodic Processes at Gold-  
plating" by the Fifth-year-student of the Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Technological  
Institute imeni Lensovèt) R. A. Nosova; "Spectral Determina-  
tion of Molybdenum and Tungsten in Tri-hetero-polyacids"

Card 4/5

Chronicle. All-Union Competition for the Best  
Students-paper Concerning Chemistry and Chemical Technology for the  
Scholastic Year 1957-1958

SOV/153-2-2-31/31

by the Third-year-student of the Kishinevskiy gosudarstvennyy  
universitet (Kishinev State University) V. A. Dagayev;  
"Capture of Dichlorine-ethane by Bone-fat in Foam-condition"  
by the Fourth-year-students of the Kasanskiy khimiko-tehno-  
logicheskiy institut (Kazan' Chemical-technological Institute),  
L. I. Yashina, R. A. Nurutdinov, and T. G. Siraznev. Taken  
collectively, the competition has shown a high standard of  
the scientific research work in the circles of the Studen-  
cheskoye Nauchnoye obshchestvo (Scientific-student-socie-  
ties) of many universities.

Card 5/5

PONOMAREVA, A.M.

PHASE I BOOK EXPLOITATION SOV/3557

Kratkiy spravochnik fiziko-khimicheskikh velichin (Short Handbook of Physical and Chemical Values) 3rd ed., enl. Leningrad, Goskhimizdat, 1959. 122 p. 50,000 copies printed.

Compilers: N. M. Baron, E. I. Kvyat, Ye. A. Podgornaya, A. M. Ponomareva, A. A. Ravdel', and Z. N. Timofeyeva; Ed. (Title page): K. P. Mishchenko and A. A. Ravdel'; Ed. (Inside book): N. K. Lobina; Tech. Eds.: S. S. Levin and T. A. Fomkina.

PURPOSE: This book is intended for students at schools of higher education and teknikums, aspirants, and teachers.

COVERAGE: This handbook contains tables on the most important physical and chemical values used in physical chemistry laboratory work and for various calculations in physics and chemistry. In this third edition of the handbook important changes have been included in the tables for radioactivity and nuclear reaction, thermodynamic values, empirical data and ratios for calculating thermodynamic values, and photochemical reactions. The remaining tables have been revised and slightly enlarged. The tables for radioactivity, nuclear

Card 1/12

Short Handbook of Physical (Cont.)

SOV/3557

reaction, and protection from radioactive radiation were revised and enlarged under the direction of I. A. Vasil'yev and the editorship of K. A. Petrzhak. The handbook contains a four-place logarithm scale. There are 82 references: 51 Soviet, 28 English, 3 German.

TABLE OF CONTENTS:

Foreword to the Third Edition	3
D. I. Mendeleev's periodic table of chemical elements	4
1. Important constants	6
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4. Radioactive series	10

Card 2/ 12

PONAMAREVA, A.M.

50V/2809

## PHASE I BOOK EXPLORATION

- 24(8) Akademiya nauk SSSR. Otdeleniye khimicheskikh nauk  
Akademika Nauk SSSR Stepanova, Tatyly soveshchaniya na  
Termodynamika i strukturnye rastvorov: teoriya soveshchaniya na  
(Termodynamika i strukturnye rastvorov: struktura i sostoyaniye  
rastvorov). Izd-vo AN SSSR,  
Conference Held January 27-30, 1958 Moscow,  
1959. 295 p. 3,000 copies printed.
- Ma. I. M. I. Shakhparonov, Doctor of Chemical Sciences; Ed. or Publishing  
House: N. G. Yagovov; Tech. Ed.: T. V. Polyakova.
- PURPOSE:** This book is intended for physicists, chemists, and  
chemical engineers.
- CONTENTS:** This collection of papers was originally presented at the  
conference on Thermodynamics and Structure of Solutions sponsored by the  
Academy of Sciences of the Soviet Union, the Department of Chemical Sciences of the  
Academy of Sciences of the Soviet Union, the Institute of Macromolecular Chemistry of the  
USSR, and the Department of Chemical Chemistry of Moscow State University,  
and held in Moscow on January 27-30, 1958. Officers of the  
Institute of Macromolecular Chemistry of the USSR, the Institute of Chemical Physics of the  
USSR, and the Department of Chemical Chemistry of Moscow State University,  
as well as other scientists from the USSR and abroad, participated in the conference.  
Also read at the conference, but not included in this work are  
electrolytic solutions, ultrafiltration measurement, dielectric  
constant, ultrasonic mixture, spectroscopic  
and thermodynamic properties of various individual substances,  
electrolytic solutions, ultrasonic mixture, spectroscopic  
and thermodynamic properties of various individual substances,  
and thermodynamic properties of various individual substances,  
spectroscopic analysis, etc. References to  
Bogomol'ina, O. P. Molecular Dispersion of Light in Solutions  
of Nonpolar Electrolytes 233  
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Theory of Molecular Dispersion of Light By Means of Rinsay.  
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Bogomol'ina, O. P. and M. I. Shevchenko. Verification of the  
Theory of Molecular Dispersion of Light By Means of Rinsay.  
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Bol'shakov, K. P. and A. M. Ponomarenko. Partial Molal  
Enteropoles in Systems Acetic Acid-Water and Formic Acid -  
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Chubanovskiy, V. N. Spectroscopic Methods for Studying the  
Structure of Solutions 251  
Bol'shikov, M. Yu. Spectroscopic Methods for Studying Complexes in  
Solutions 258  
Zolotnitsky, V. V., Ye. P. Kolobkov, and I. I. Reznikova.  
Relationship Between Electronic Absorption Spectra and the Chemical  
Radiation of Solutions of Organic Compounds and the Chemical  
Nature of Solvents 262  
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Solvation of Zn<sup>2+</sup> in Solutions With the Aid of Optical  
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Yantipova-Kostyleva, I. I. Study of the Effect of the  
Surrounding Medium on the State of the Carboxyl Ion by Means  
of Absorption Spectra of Alum Crystallites. Study of the  
Infrared Spectra of Electrolytic Solutions in Poromeric  
Lerashin, V. P., Ye. G. Sankova, L. D. Derkacheva, and  
L. V. Lezhneva. Study of Association in Concentrated  
Solutions of Dyes by Means of Absorption and Luminescence  
Spectra 275  
X. Lovatin, L. V. Effect of Ionization and Association on  
Optical Properties of Complex Organic Molecules 285

COUNTRY  
CATEGORY

USSR

M

CULTIVATED PLANTS. Fodder Grasses and Roots.

ARS. JOUR.

REF ZHUR - BIOLOGIYA, NO. 4, 1959; No. 15705

AUTHOR  
INST.

Ponomareva, A.N.

TITLE

From an Experiment in Harvesting Summer Vetch  
for Seeds in the Phase of Green and Yellow  
Beans.

ORIG. PUB. : Selektsiya i semenovodstvo, 1958, No.1, 63-64

ABSTRACT

In 1953-54 an experiment in harvesting vetch  
of the L'govskaya 31-292 sort in the phase  
of green and yellow beans was carried  
out in the Verkhne-Mullinskiy Rayon of Perm'skay  
Oblast. The mown mass was dried, stored in the  
open air and the germination of seeds tested  
in 15 to 20, 45 and 75 days. On the day of  
harvesting the vetch seeds were incapable of  
germination; after 45 to 75 days germination  
reached 95 to 99 %. -- Ye.A. Okorokova

CARD:

1/1

PONOMAREVA, A.N.

The "Tashkent," "Uzbek," and "Fergana" vegetable salads. Kons.1 ov.prom.  
17 no.12;23 D '62. (MIRA 15:12)

1. Tekhnologicheskoye byuro po konservnomu proizvodstvu upravleniya  
promyshlennosti prodrovol'stvennykh tovarov soveta narodnogo khozyaystva  
Uzbekskoy SSR. (Uzbekistan—Vegetables, Canned)

PONOMAREVA, A. N. (USSR)

"Free Amino-Acids in the Reaction of Melanoidin Formation during  
the Baking of Bread."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 Aug 1961

KRETOVICH, V.L.; PONOMAREVA, A.N.

Amino acid participation in the reaction of melanoidin formation  
during the baking of bread. Biokhimia 26 no.2:237-243 Mr-Ap '61.  
(MIRA 14:5)

1. The Technological Institute of Food Industry, Moscow.  
(BAKING) (AMINO ACIDS) (MELANOIDINS)

PONOMAREVA, A.N.; KRETOVICH, V.L.

Quantitative determination of free amino acids in grain and  
fleur. Izv.vys.ucheb.zav.; pishch.tekh. no.1:132-134 '60.  
(MIRA 13:6)

1. Kafedra biokhimii i zernovedeniya Moskovskogo tekhnologicheskogo instituta pishchevoy promyshlennosti.  
(Amino acids)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342120017-0

LIAKUMOVICH, A.G.; GUNBIN, N.S.; RUTMAN, G.I.; ZAYTSEVA, G.A.; PONOMAREVA, A.P.

Improved process of butylene dehydrogenation in the synthetic  
rubber plant in Sterlitamak. Khim.prom. 41 no.7:532-539 Jl '65.  
(MIRA 18:8)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342120017-0"

KIPRIANOV, A.I.; PONOMAREVA, E.A.

Cyanine dyes from phenzaine derivatives. Part 1. Ukr.khim.zhur.  
26 no.1:78-85 '60. (MIRA 13:5)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G. Shevchenko.  
kafedra organicheskoy khimii. (Cyanine dyes)  
(Phenazine)

5(4)

## PHASE I BOOK EXPLOITATION

SOV/1428

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A.A.Ravdel', and G.I. Semenov

Prakticheskiye raboty po fizicheskoy khimii (Practical Work in Physical Chemistry)  
Leningrad, Goskhimizdat, 1957. 263 p. 11,000 copies printed.

Eds. (Title page): K.P. Mishchenko, Professor, and A.A. Ravdel', Docent;  
Ed. (Inside book): N.K. Lobina; Tech. Ed.: Ye. Ya. Erlikh.

PURPOSE: This textbook was approved by the Ministry of Higher Education as a manual  
for students of vuzes specializing in chemistry.

COVERAGE: The text covers the theoretical and practical aspects of experimental  
physical chemistry. It is the aim of the authors to aid the student in his  
laboratory work by preceding each experiment with a theoretical introduction,  
a description of the apparatus, and the order of the determination and compu-  
tation of results. Much attention is given to the fundamentals of chemical  
thermodynamics, reaction kinetics, and equilibrium. The basic techniques of

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experimentation and the treatment of experimental data are presented so as to enable the student to work independently. The text was prepared jointly by the staff of the Department of Physical Chemistry, Leningradskiy tekhnologicheskiy institut imeni Lensoveta (Leningrad Technological Institute imeni Lensoveta) with K. P. Mishchenko and A.A. Ravidel' as editors, and N. M. Baron and A.M. Ponomareva as coeditors. The book was reviewed by Professors V.A. Kiryeev, B.P. Nikol'skiy, corresponding member of the AS USSR, and by the staff of Professor Nikol'skiy. There are no references.

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PONOMAREVA, A.N.

Reaction of melanoidin formation and its role in baking  
bread. Prikl. biokhim. i mikrobiol. 1 no.5:566-584 S-0 '65.

(MIRA 18:11)

I. Moskovskiy tekhnologicheskiy institut pishchevoy  
promyshlennosti.

SOKOLOV, B.N., inzh.; PONOMAREVA, A.S., inzh.

Controlling slime formation. Bum.prom. 35 no.5:16-18  
My '60. (MIRA 13:7)

1. Nauchno-issledovatel'skaya laboratoriya pervogo  
Kalininogradskogo tselyulozno-bumazhnogo kombinata.  
(Kalininograd--Woodpulp)

PONOMAREV, P.G.

Unsymmetrical organic  $\alpha$ -oxides. Part 13: Syntheses employing  
the ethyl ether of glycidol. Trudy VGU 57:149-154 '59.  
(MIRA 13:5)

(Glycidol) .

PONOMAREV, F.G.; TROITSKIY, A.F.; SHATALOV, V.P.

Copolymerization of styrene oxide with butadiene. Zhur.prikl.khim.  
33 no.1:254-256 Ja '60. (MIRA 13:5)  
(Benzene) (Butadiene)

PONOMAREVA, A. M.

USSR/Thermodynamics - Thermochemistry. Equilibria.  
Physical-Chemical Analysis. Phase Transitions.

B-8

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18452

Author : K.P. Mishchenko, A.M. Ponomareva.

Title : Thermochemical Study of Aqueous Solutions of Electrolytes  
IV. Thermochemistry of Aqueous Solutions of Ammonium  
Chloride.

Orig Pub : Zh. obshch. khimii, 1956, 26, No 5, 1296-1340

Abstract : The total heat of solution of  $\text{NH}_4\text{Cl}$  in water and the specific heats of produced solutions were measured in a wide range of concentrations (up to 11 Ml). The partial molal thermodynamic characteristics of these solutions were computed for temperatures of 18, 25, 50 and 75°. The received data show that not the classification of electrolytes in accordance with the shape of particular isotherms, but the classification in accordance with the temperature range of the transition of one isotherm type into another is

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USSR/Thermodynamics - Thermochemistry, Equilibria,  
Physical-Chemical Analysis, Phase Transitions.

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18452

expeditious. The change of the slant of isoterns of many energetic properties of the studied system is explained by the change of the relative part of solvation effects and by the effect of drawing together of ions. The exothermic effect of gradual drawing together of ions dominates at not high temperatures, and the solution process becomes less endothermic together with the concentration rise. At a temperature rise, the energy of the ion interaction changes comparatively little, and the endothermic effect of the desolvation changes considerably. See Report III in Kaganovich Yu. Ya., Mishchenko K. P., Dokl. AN SSSR, 1952, 87, 89.

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PONOMAREVA, A.M.

BARON, N.M.; VOLOVA, Ye.D.; YEGOROV, I.M.; KVYAT, E.I.; MISHCHENKO, K.P.,  
prof.; PONOMAREVA, A.M.; RAVDEL', A.A., dots.; SEMENOV, G.I.;  
LOBINA, N.K., red.; ERJIKH, Ye.Ya., tekhn.red.

[Practical work in physical chemistry] Prakticheskie raboty po  
fizicheskoi khimii. Pod red. K.P.Mishchenko i A.A.Ravdelia.  
Leningrad, Gos.nauchno-tekhn.izd-vo khim.lit-ry, 1957. 263 p.  
(MIRA 11:2)

(Chemistry, Physical and theoretical--laboratory manuals)

TYUKOV, D.M.; KRUPINA, A.P.; PONOMAREVA, A.N.

Spectral characteristics and bactericidal effect of the radiation of  
fluorescent sun lamps. Sig.i san. no.1:10-12 Ja '54. (MLRA 6:12)

1. Iz Leningradskogo nauchno-issledovatel'skogo sanitarno-gigiyenicheskogo instituta.  
(Fluorescent lamps) (Bactericides) (Ultraviolet rays--Physiological effect)

PONOMAREVA A.M.

KRUPINA, A.P.; TYUKOV, D.M.; PONOMAREVA, A.M.

Bactericidal effectiveness of sun rays in polluted atmospheric  
conditions. Gig. i san., no.8:15-18 Ag '54. (MLRA 7:9)

1. Iz Leningradskogo nauchno-issledovatel'skogo sanitarno-gigiyeni-  
cheskogo instituta.  
(AIR, bacteriology,  
eff. of sunlight)  
(SUNLIGHT, effects,  
on bact. in air)

PONOMAREVA, A.N., Cand Biol Sci — (diss) "Variation in phosphorous compounds in the germination of wheat seeds."

Rostov-on-Don, 1959, 16 pp (Rostov-on-Don State Univ. Biol Soil Faculty) 150 copies (KL, 34-59, 113)

AUTHOR:

Ponomareva, A. N.

SOV/20-12163-33/47

TITLE:

The Activity of Adenosine Triphosphatase of Wheat in the Course of Germination (Aktivnost' adenozintrifosfatazy pshenitsy pri prorastanii)

PERIODICAL:

Doklady Akademii nauk SSSR, Vol. 121, Nr 3,  
pp. 515 - 518 (USSR)

ABSTRACT:

In an earlier paper the author found (Ref 1) that the dynamics of the fractions of easily hydrolyzable phosphorus compounds and of organic phosphorus undergo certain changes in connection with the germination of wheat seeds. She assumed that the processes of development and growing are accompanied by the consumption of the energy of the terminal bindings of adenosine triphosphorus acid (ATP) which are rich in energy; and that this is the cause of mentioned changes in the phosphorus fractions. In order to prove that this was the case the author carried out experiments dealing with the problem mentioned in the title. The ferment ATP-ase carries through the mentioned terminal bindings, which is important in connection with germination (Refs 2,7 and others). Figure 1 shows the activity of ATP-ase at a different duration of incubation. Based upon

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The Activity of Adenosine Triphosphatase of Wheat in  
the Course of Germination

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the obtained results the author (Tables 2,3) draws the following conclusions: During the germination of the wheat seed without light and without an external supply of nourishing substances the ATP-ase activity is much higher in the extracts from sprouts than in those of the roots and of the endosperm. On the fourth day of germination the activity is highest. Up to the tenth day it decreases almost six-fold. In the roots this activity is weak and decreases from the third to the tenth day. In the endosperm it remains unchanged during the first 10 days. In the case of germination under the influence of light the hydrolytic activity of ATP-ase increases and reaches its climax on the seventh day. It has about the same activity as a four-days-old etiolated sprout. Towards the 15<sup>th</sup> day it decreases to one third. ATP-ase is more active in the case of light-bred sprouts than in etiolated ones. 3. In light ATP-ase is most active on the sixth day. Towards the 15<sup>th</sup> day it decreases 3,5-fold. In sprouts which were bred in the Knop's mixture the ATP-ase activity increases on the fifth day in order to decrease toward the 15<sup>th</sup> day as mentioned before. 4. This decrease is a regularity which reoccurs in all experimental variants. 5.

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The Activity of Adenosine Triphosphatase of Wheat in  
the Course of Germination SOV/20-121-3-33/47

According to the author's opinion, in the dark and without supply of mineral substances ATP-ase has the character of apyrase. There are 3 figures and 8 references, 4 of which are Soviet.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-na-Donu State University)

PRESENTED: February 26, 1958, by A. I. Oparin, Member, Academy of Sciences, USSR

SUBMITTED: January 20, 1958

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USSR/Plant Physiology. Mineral Nutrition

Abs Jour : Ref Zhur - Biol., No 19, 1958, No 86650

Author : Ponomareva A.P.

Inst : AS USSR

Title : The Dynamics of Phosphorus Compounds in the Early Ontogenesis  
of Wheat

Orig Pub : Dokl. AN SSSR, 114, No 1, 154-157, 1957

Abstract : Grains of Melyanopus 69 wheat were grown on filter paper in darkness for 10 days at a temperature of 20-22°. Inorganic P (I) (according to the method of Fiske and Subbarow) and easily hydrolyzing P (II) (according to the residue of phosphoric acid remaining after a 7-minute hydrolysis of the extract in 1 N. HCl at 100°) were determined in the proteinless trichloroacetic acid. In the course of germination of the grain, the content of the investigated fractions tended to increase. In the wheat germs (investigated from the 4th day of germination) the content of I increased; the content of

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USSR/Plant Physiology. Mineral Nutrition

Abs Jour : Ref Zhur - Biol., No 19, 1958, No 86650

II reached its maximum from the 4th to the 6th day, and on the 13th day that fraction vanished. In the root, the content of I reached its maximum on the 6th day, and remained unchanged from the 6th to the 10th day, while II was absent. In the endosperm the content of I increased from the 4th to the 10th day (6 times). The content of II was very low, - between the 4th and 5th day it increased a little, and from the 7th day onward it decreased. MTF was not detected in the 5-day germs. The study was executed at the Rostov-on-Don University. -- B.Ye. Kravtseva.

Card : 2/2

PONOMAREVA, A.R.

Changes in phosphorus compounds observed in early ontogenesis in wheats. Dokl. AN SSSR 114 no.1:154-157 My '57. (MLRA 10:7)

1. Rostovskiy na Donu gosudarstvennyy universitet im. V.M.Molotova.  
Predstavлено академиком А.Л.Курсановым.  
(Wheat) (Phosphorus organic compounds)

AUTHOR:

PONAMAREVA, A.R.

TITLE:

On the Dynamics of Phosphorus Compounds in the Early Ontogenesis  
of Wheat. (Dinamika fosformykh soedineniy v rannem ontogeneze  
pshenitsy, Russian)

PERIODICAL:

Doklady Akademii Nauk SSSR, 1957, Vol 114, Nr 1, pp 154-157  
(U.S.S.R.)

20-1-42/64

ABSTRACT:

This problem has as yet been but little investigated. Without  
lengthy and detailed investigation it is impossible to gain  
a clear conception of the energy sources of growth.  
The present paper intends to clear this problem.

The following results were, among others, obtained after close  
investigation:

The accumulation of organic phosphorus in the early stages  
of the process of the growth of wheat takes place at the ex-  
pense of the decay of phosphatides and phosphorus proteins.  
A noticeable increase of the concentration of the fraction of  
easily hydrolyzed phosphorus apparently occurs at the expense

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